Reviewer's report

Title: Predictors of mortality among elderly dependent home care patients

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Reviewer: Claudio Bilotta

Reviewer's report:

This manuscript described the findings of a longitudinal cohort study performed in 2005-2006 on a sample of 1,001 older patients with disabilities receiving home care programmes delivered by primary care teams in Catalonia, Spain. Predictors of mortality at one year in the sample as well as predictors of mortality at one year in the sub-sample of subjects who were admitted to hospital at least once during follow up were investigated. The latter sub-sample was proposed ‘since hospital admission was identified as a risk factor for death’ (page 6, Discussion, first paragraph) in the overall sample. However, ‘hospital admissions during follow-up’ (page 4, Data collection, second paragraph; Table 5, which refers to ‘Services received by patients during the year of follow-up’) could not be included in the multivariate analysis concerning predictors of mortality at a one-year follow-up since this variable was not available at baseline assessment.

MAJOR COMPULSORY REVISIONS

1. Authors should perform again multivariate logistic regression analysis taking into account the variables assessed at baseline only (i.e. without hospital admissions in the year of follow-up) and the discussion should be revised accordingly. As a consequence, the second multivariate analysis, performed on the sub-sample of patients admitted to hospital, should be deleted.

2. At page 5 Authors stated that ‘certain selected variables, namely informal carer characteristics such as gender, age, and the value of the Zarit test, were excluded from the (multivariate) analysis as they had too many missing values’. However, this is in contrast with data shown in Table 3, in which there are no missing data among the 1,001 participants. Authors should explain such statement at page 5 and then include caregivers’ characteristics in the multivariate analysis.

3. Given the observational nature of the study, in discussing their findings – and in particular in discussing about the clinical relevance of preventive measures against pressure ulcers - Authors should better take into account that pressure ulcers were found to be a predictor of death, not a cause of death. Several potential confounders – i.e. causes of both pressure ulcers and death - were not considered in this study such as malnutrition, frailty syndrome and severity of comorbidity: the Charlson Index, which was used in this study to assess comorbidity, does not consider the severity of diseases, such as severity of dementia, heart failure, chronic pulmonary diseases. Thus severity of comorbidity was underestimated in the study and probably for this reason pressure ulcers
were a surrogate for higher physical vulnerability and predicted death.

MINOR ESSENTIAL REVISION
1. Percentage of participants who died during follow-up (i.e. 290 out of 1,001) should be provided at page 5, Results.

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.